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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/506,489	02/18/2000	Hiroaki Miura	040679/1012	8527
22428	7590	11/17/2003	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			PIERCE, JEREMY R.	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/506,489

Applicant(s)

MIURA ET AL.

Examiner

Jeremy R. Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-6, 13, 14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-6, 13, 14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 29, 2003 has been entered.

### ***Response to Amendment***

2. Applicant's amendment cancels claims 7, 15, and 16. Claims 3 and 13 have been amended. New claims 17 and 18 have been added.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 3-6, 13, 14, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Byma et al. (U.S. Patent No. 6,322,658).

Byma et al. disclose a sound absorbing material comprising an inner sound absorbing layer and an outer reinforcing layer (column 2, lines 41-44). The inner layer comprises between 20 and 50% fine fibers with a denier in the range of 0.8 to 3.0, between 0 and 70% of fibers with a denier in the range of 4 to 15, and 10-50% binder fibers with all fibers having a denier range between 0.8 and 15 (column 2, lines 48-54). The fibers are preferably polyester (column 2, line 58). The outer layer also contains polyester fibers in the range of 6 to 25 denier (column 3, lines 15-24). The thickness of the inner layer may range from 0.5 to 20 mm and the thickness of the outer layer may range from 0.5 to 10 mm. With regard to claims 4 and 5, the outer layer is composed of both reinforcing fibers and binder fibers (column 3, lines 18-19). With regard to claims 6 and 14, there may be two outer layers (column 2, line 44). With regard to claims 17 and 18, the percentages disclosed by Byma et al. indicate the inner layer may be made of 50% by weight fine fibers and the binder fibers may make as little as 10% by weight (column 2, lines 52-54). Measured in the unit of "parts" as Applicant claims, there could thus be 75 parts fine fiber and 15 parts binder fiber to achieve the 50:10 percentage

ratio. Parts, unlike percentages, do not carry an inverse relationship, and the claims do not preclude other fibers from being present.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-6, 13, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletemier et al. (U.S. Patent No. 6,156,682).

Fletemier et al. disclose a sound absorbing material where the core contains polyester fibers with a denier of 0.9 blended with polyester fibers with a denier of 15 and binder fibers (column 3, lines 41-56). The core is sandwiched by adjacent layers containing a blend of 15 and 45 denier polyester fibers and bicomponent binder fibers (column 3, lines 49-53). Fletemier et al. do not disclose the parts by weight of the fibers, but do disclose that the invention is not limited to particular denier values (column 3, lines 6-7). Fletemier et al. teach that the range of denier may be adjusted to provide desired mechanical, bonding, and acoustical properties (column 3, lines 10-11). Fletemier et al. further teach that low denier fibers, for example, 0.9, contribute substantially to the increased sound absorption of the core (column 3, lines 15-16). It would have been obvious to a person having ordinary skill in the art at the time of the invention to supply an insulation material with the claimed ranges for various fiber sizes

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in order to optimize the mechanical, bonding, and acoustical properties of the nonwoven insulation as taught by Fletemier et al., since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 3-6, 13, 14, 17, and 18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent No. 5,298,694 to Thompson et al., which discloses the enhanced acoustical insulation properties attained by using fibers with a denier of less than 1 (column 4, lines 57-61).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JRP

jrp

*Elizabeth M. Olo*  
JRP  
Patented 12/10/2009